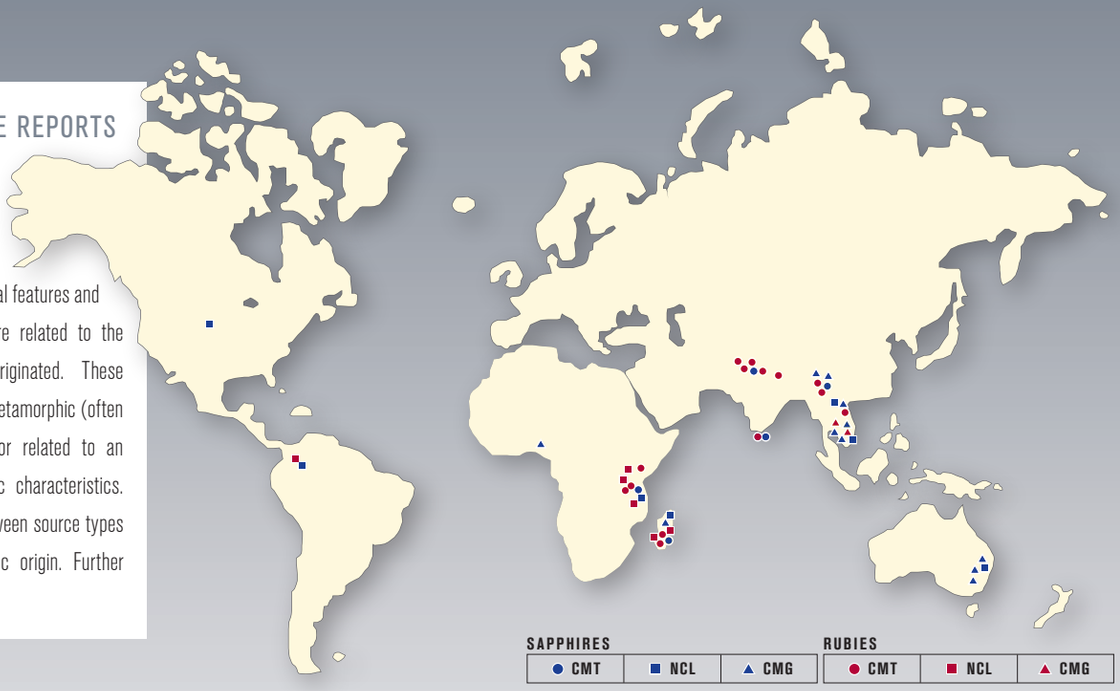
YOUR GIA RUBY AND SAPPHIRE REPORTS

This report provides information describing the source type of your ruby or sapphire. GIA's Source Type Classification separates rubies and sapphires according to their individual features and properties. These features and properties are related to the geologic environments in which they originated. These environments may be categorized as classic metamorphic (often marble), classic magmatic (often basaltic or related to an eruptive event), and others with non-classic characteristics. The detail below outlines the relationships between source types and indicates how they relate to geographic origin. Further information is available at www.gia.edu.



Commercial ruby and sapphire deposits worldwide

INTERNAL FEATURES*	TYPE I	TYPE II	TYPE III	TYPE IV
(CMT) Classic Metamorphic	"Rutile" needles, **or** the lack of any of those inclusion features that designate types II, III and IV (except CMG Type IV rubies and purple/pink sapphires)	"Milky" zonal clouds and/or general turbidity	Cross-hatch, flake-like, stringer formations, or patterned clouds	Clusters of zircon crystals
(NCL) Non-classic Metamorphic or Magmatic				**MAY BE EITHER:** High concentration of zircon crystals **or** negative crystals with equatorial thin films
(CMG) Classic Magmatic				Negative crystals with equatorial thin films

*These dominant inclusion features are only one of the factors considered in GIA's Source Type Classification. Additional considerations may include; general color appearance, absorption spectra and chemistry.

The possible sources given below are not all encompassing. Some smaller sources may not be included and new sources are frequently discovered. The most significant sources for each type are given at the time of printing. The information compiled here focuses on red and blue corundum (ruby and sapphire). However, any color of corundum may be classified using this system.

TYPE I	TYPE II	TYPE III	TYPE IV
Possible CMT (Classic Metamorphic) ruby sources			
• Burma (Mogok) • Afghanistan • Kenya • Madagascar • Pakistan • Sri Lanka • Tajikistan • Tanzania • Vietnam	• Sri Lanka • Tajikistan • Tanzania • Vietnam • Madagascar • Pakistan • Kashmir	• Burma (Mong Hsu) • Afghanistan • Nepal • Pakistan • Tanzania • Vietnam	• Madagascar • Kenya • Tanzania • Sri Lanka (rare)
Possible NCL (Non-classic Metamorphic or Magmatic) ruby sources			
• Tanzania • Malawi • Colombia • Kenya • Madagascar	• Tanzania	Unknown at this time	• Kenya • Colombia
Possible CMT (Classic Metamorphic) blue sapphire sources			
• Burma • Sri Lanka • Madagascar • Tanzania	• Kashmir • Madagascar • Sri Lanka • Tanzania • Vietnam (rare)	• Madagascar (rare) • Sri Lanka (rare)	• Burma (rare) • Madagascar • Sri Lanka (rare) • Tanzania
Possible NCL (Non-classic Metamorphic or Magmatic) blue sapphire sources			
• USA-Montana • Tanzania • Australia • Laos • Vietnam • Colombia	• Tanzania • Australia • Laos • Vietnam	Unknown at this time	• USA-Montana • Colombia
Possible CMG (Classic Magmatic) ruby and sapphire sources			
BLUE / GREEN / YELLOW SERIES			RUBY AND PINK TO PURPLE SAPPHIRE
• Australia, Cambodia, China, Madagascar, Nigeria, Thailand, Vietnam, Laos			• Thailand, Cambodia

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